21:10

1. [illegible]________[illegible]. [illegible]______.

[illegible]

______[illegible].

2. [illegible]______[illegible].

3. [illegible]

[illegible]______[illegible]

[illegible]

[illegible]. [illegible]_____[illegible]

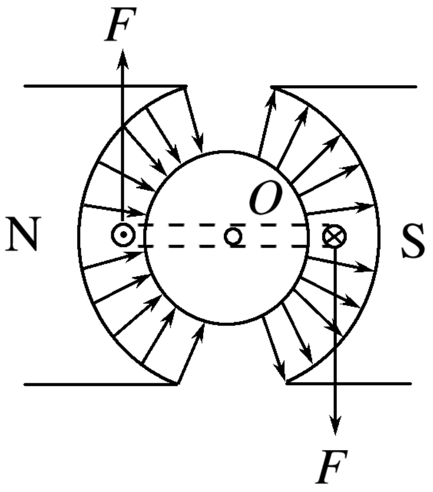
[illegible]______[illegible].

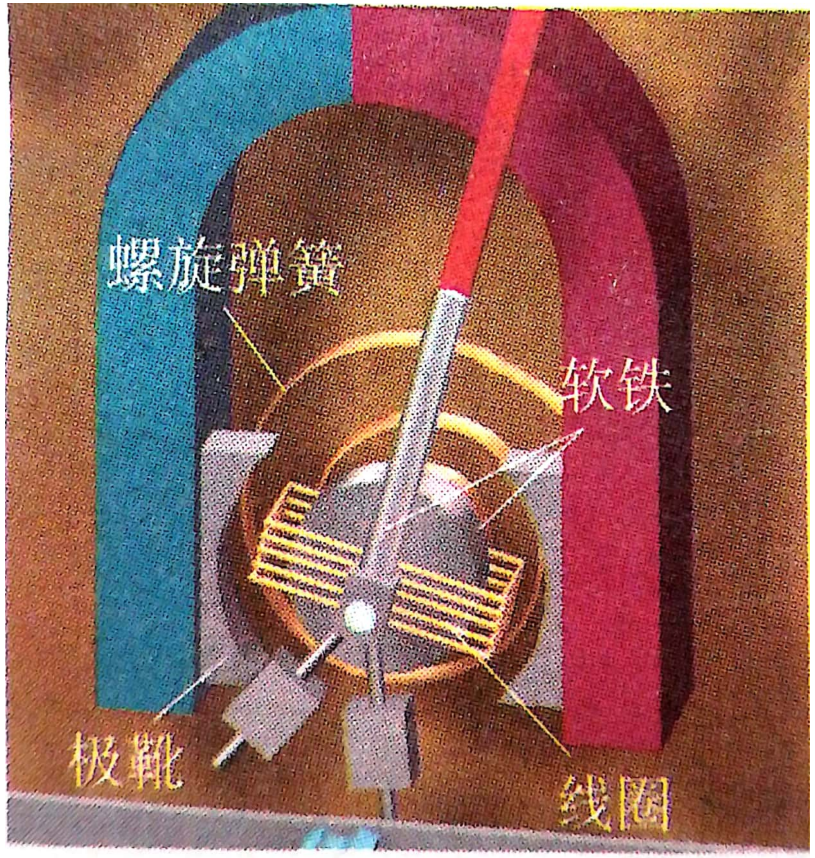
4. [illegible]______[illegible].

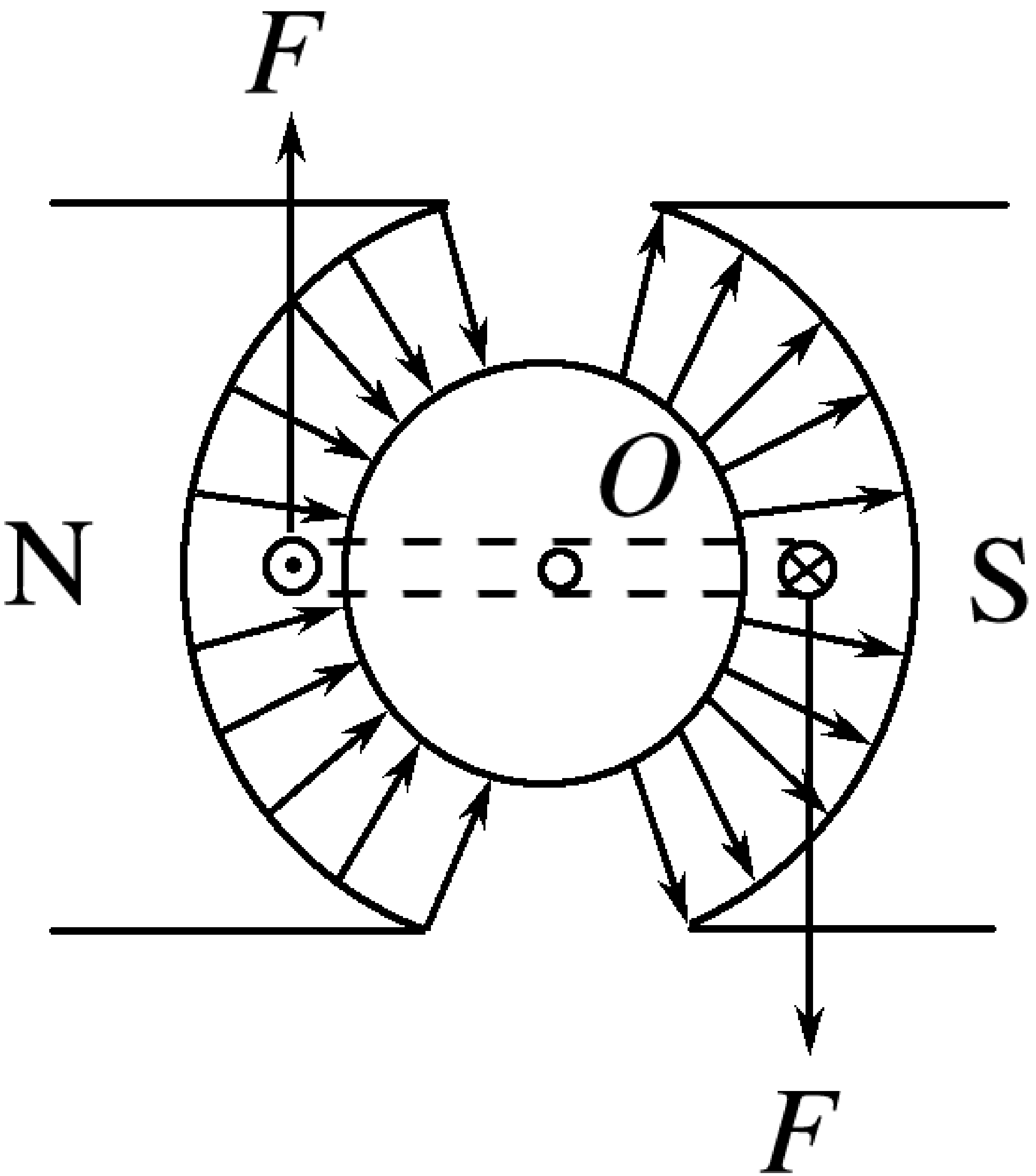
[illegible].

[illegible]

[illegible]






F
O
N
S
F

[illegible] [illegible]. [illegible]. [illegible]

[illegible]. [illegible] (b [illegible]) [illegible] (　　　)

A

A. [illegible] b [illegible]

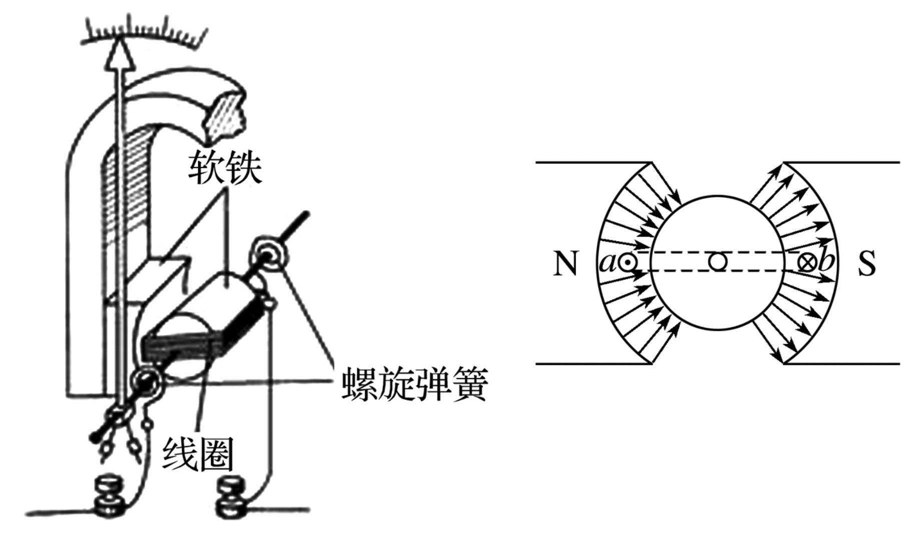
[illegible]

B. [illegible]

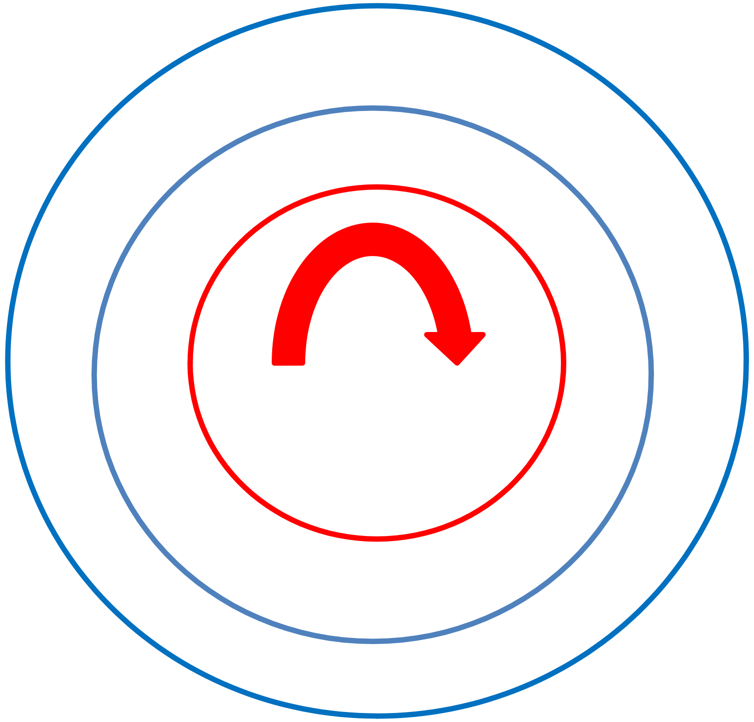
[illegible]

C. [illegible]

D. [illegible]



甲　　乙



1. [illegible].

2. [illegible]

.

1. [illegible]

[illegible].

2. [illegible]

[illegible].

[illegible]. [illegible] AB [illegible] CD [illegible] CD [illegible] ([illegible])(　　)

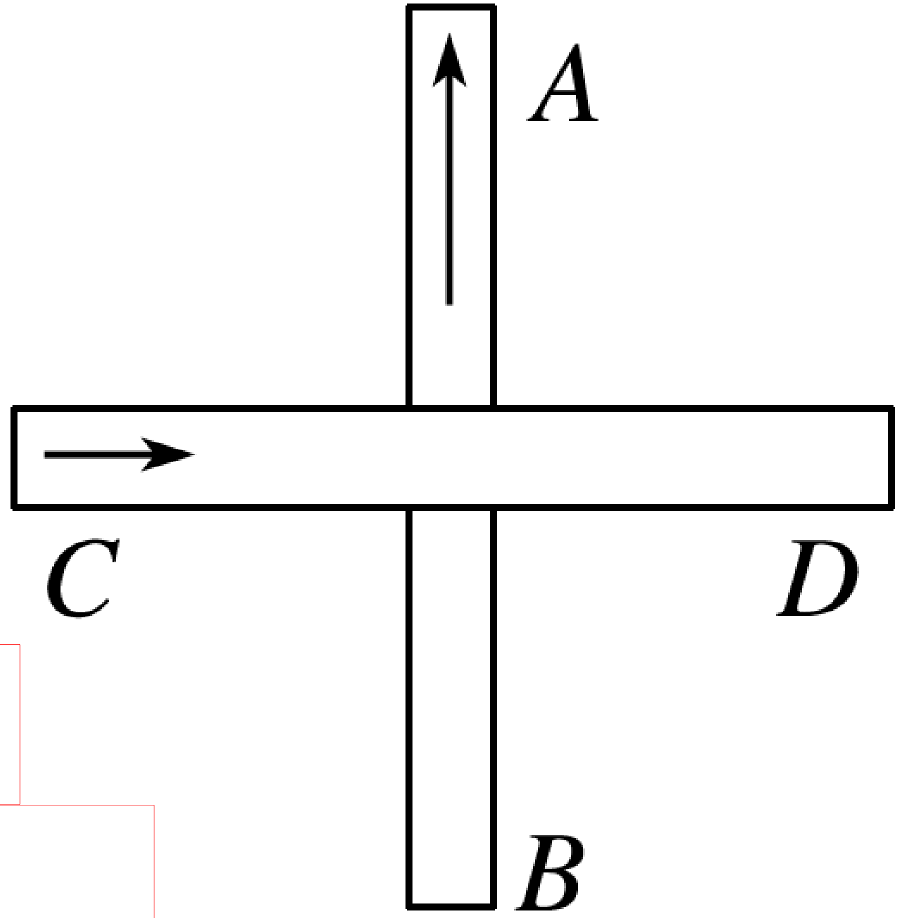
D

A. [illegible] AB

B. [illegible] AB

C. [illegible] AB

D. [illegible] AB



1. [illegible] - [illegible]

2. [illegible] - [illegible]

3. [illegible]

[illegible]

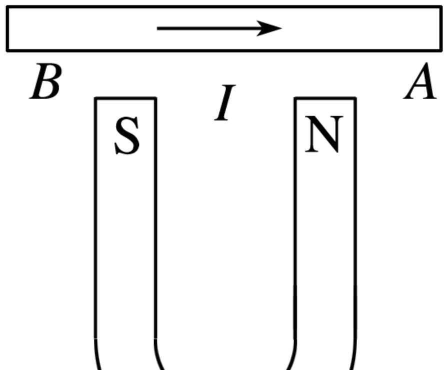
[illegible] I [illegible] ([illegible])

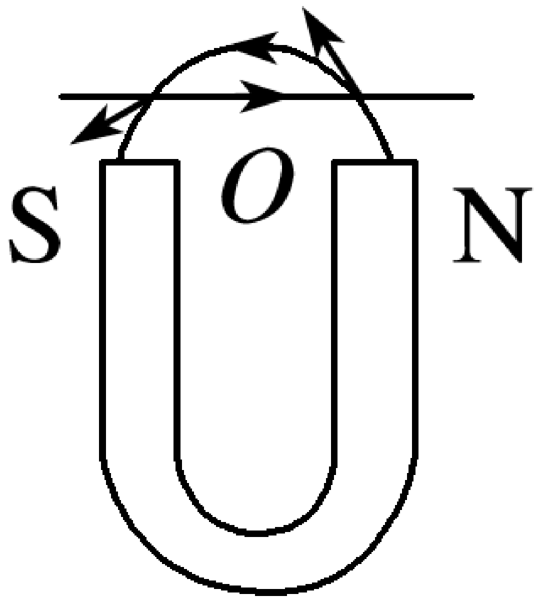
A. [illegible]

√ B. [illegible]

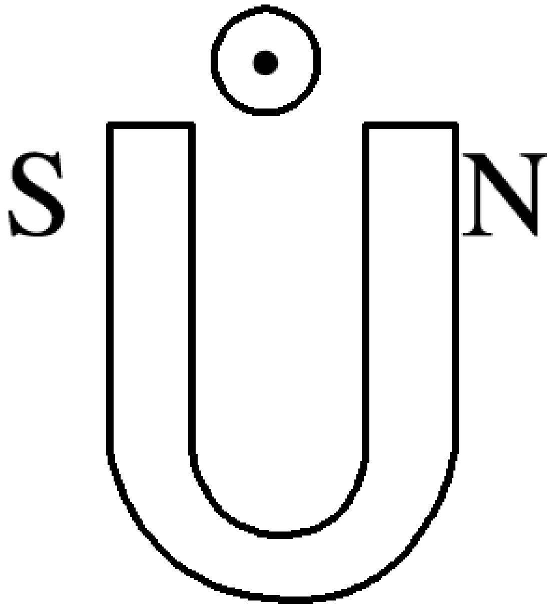
C. [illegible]

D. [illegible]





甲



乙

3. [illegible]

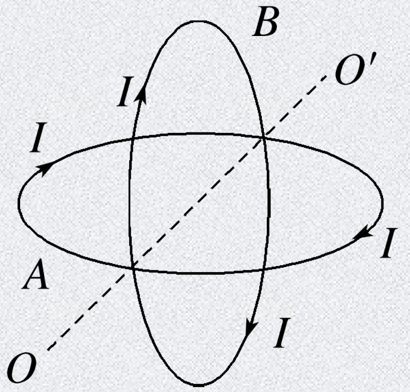
(1) [illegible]

[illegible]

(2) [illegible].

□ □□□□□□□□□□□□□□□□□□□□□□□□ A □ B □□□□□ OO' □

□□□□□□□□□□□□□□□□□ OO' □□□□□



A.A □□ B □□□□□

B.A □□□□□□□□ B □□□□□□□□□□□□□□

C.A □□□□□□□□ B □□□□□□□□□□□□□□

D.A □□□□□□□□ B □□□□□□□□□□□□□□□□□□□□□

√

[illegible] [illegible]

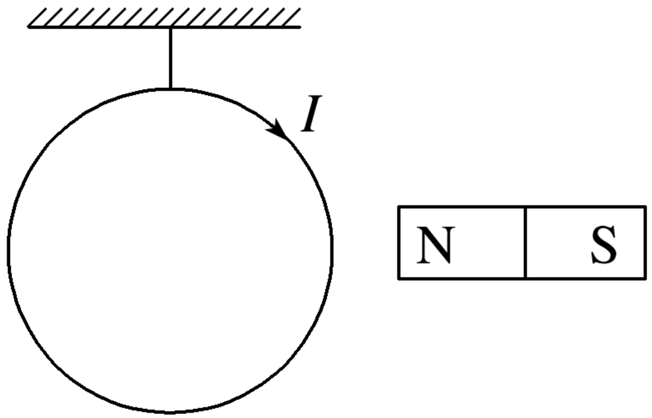
[illegible]

A. [illegible]

B. [illegible]

C. [illegible]

√D. [illegible]



4. [illegible] - [illegible] [illegible]

[illegible]

5. [illegible]

[illegible][illegible]. [illegible]

[illegible]

[illegible].

([illegible]) [illegible] F_1 [illegible] F_2 [illegible]

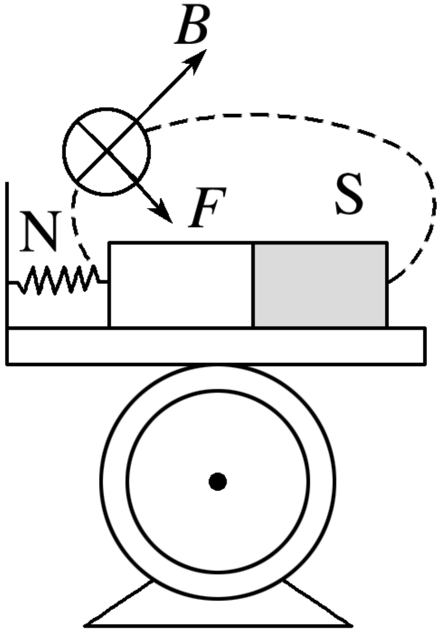
[illegible]

A. [illegible]

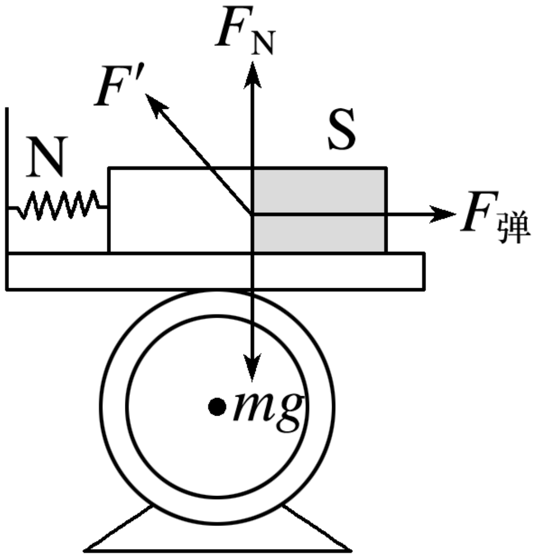
B. [illegible]

√ C. $F_1 > F_2$

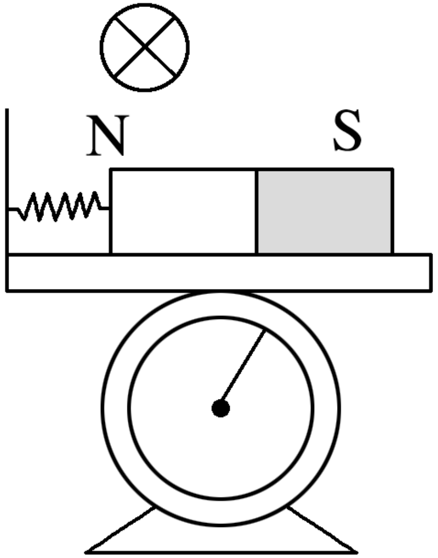
√ D. $F_1 < F_2$



甲



乙



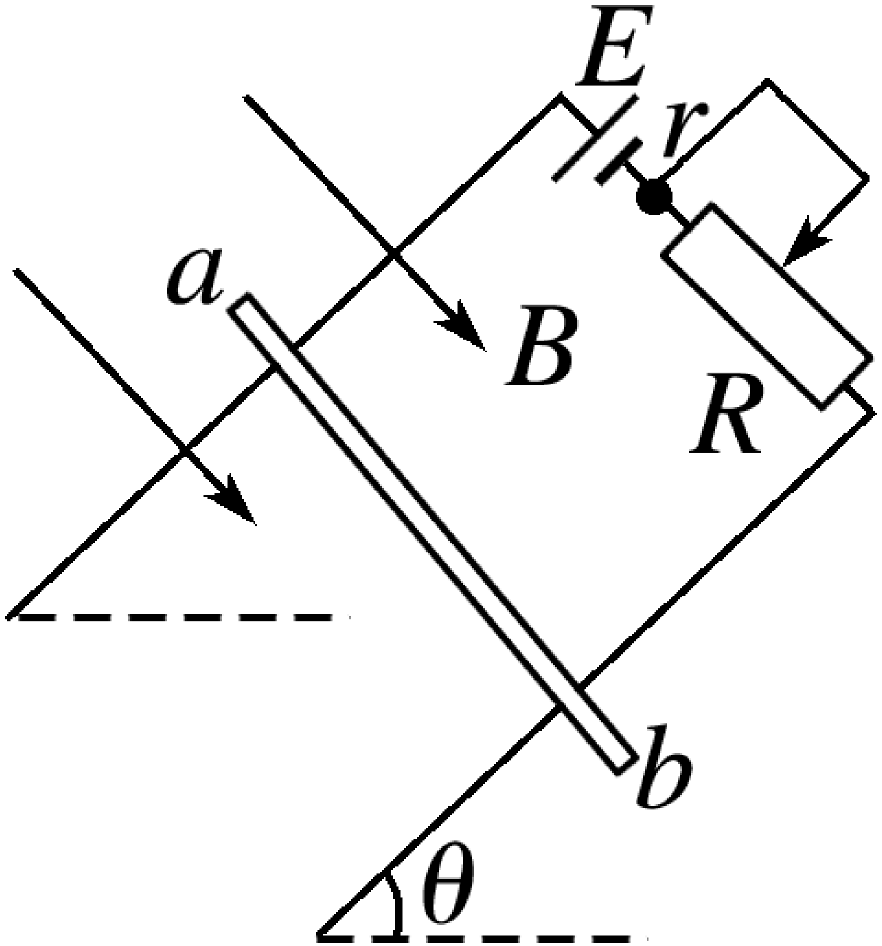
[illegible]

[illegible]. [illegible]. [illegible]

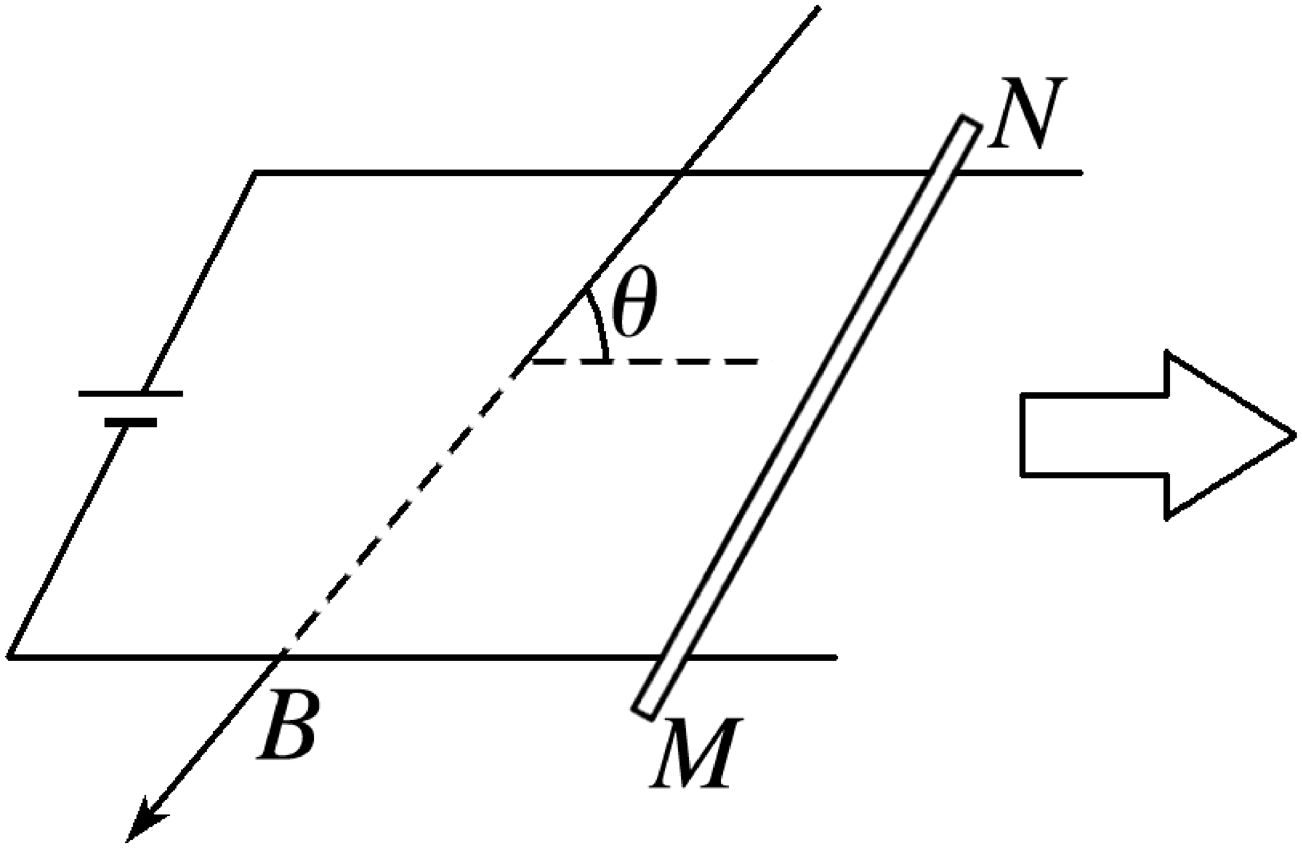
[illegible]

[illegible] P68-69

12 [illegible]



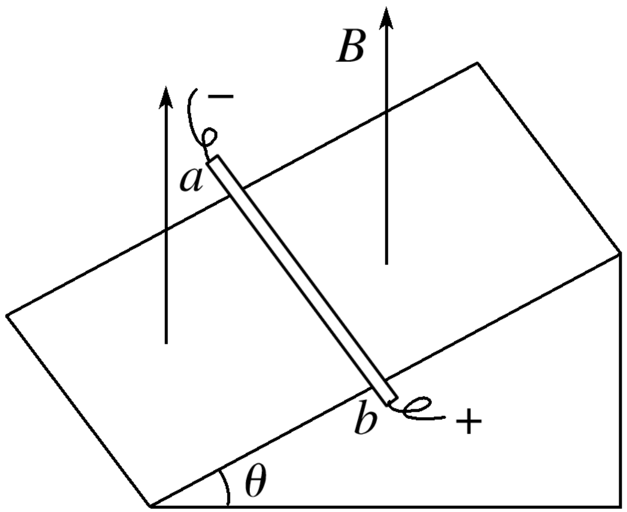
立体图



立体图

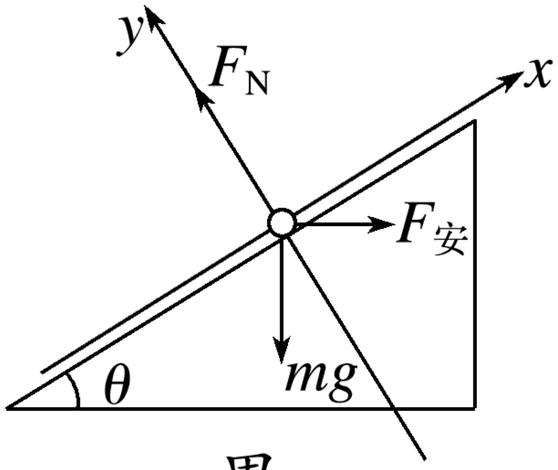
□□□□□□□□□L□□□□m□□□□ab□□□□□□θ□□□□□□.□□□□□□□□□□□□□

□□.□□□□□□□□b□a□□□□□□□I□□□□□□□g.



(1)□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□B□

□□□



甲

□□□□□□□□□□□□□□□□□□□

$mg\sin\theta$□$BIL\cos\theta$□

□ □ B□$\dfrac{mg}{IL}\tan\theta$.

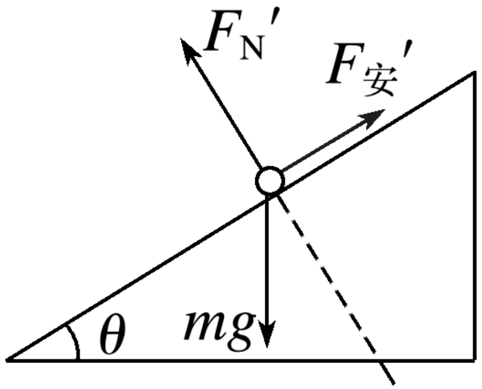
(2) [illegible].

[illegible]

$mg\sin\theta$ [illegible] $B_{\min}IL$ [illegible]

[illegible] $B_{\min}$ [illegible] $\frac{mg}{IL}\sin\theta$.

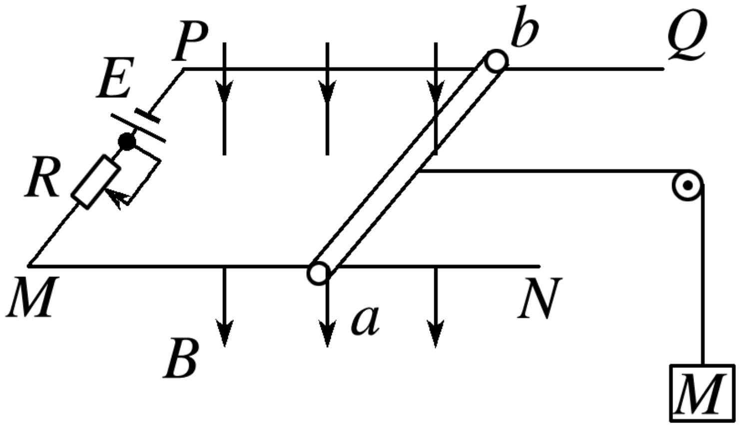
[illegible].



乙

□□　□□□□□ PQ □ MN □□□□□□□□□□□□□□□ L □ 1 m.P □ M □□□□□□□□□ E □ 6 V □□□□□□□□□□□□□□□□□□□□ ab □□□□□□□□□□□□□□□□□□□□ m □ 0.2 kg □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ M □ 0.4 kg. □□□□□□□□□□□ μ □ 0.5(□□□□□□□□□□□□□□□□□□□□□

□□□□□ g □ 10 m/s^2) □□□□□□□□□□□□ B □ 2 T □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□



A.2 Ω　　　　B.2.5 Ω

√C.3 Ω　　　　D.4 Ω

□□□□□□□□□□□□□□□□ F_T□Mg□□□□ $F_{□}$□BIL□$\frac{BEL}{R}$.

□□□□□□□□□□$\frac{BEL}{R_1}$□μmg□Mg□□□□□□□ R_1□$4\ \Omega$□□□□

□□□□□□□$\frac{BEL}{R_2}$□μmg□Mg□□□□□□□ R_2□$2.4\ \Omega$□□□ R□□

□□□□ $2.4\ \Omega \le R \le 4\ \Omega$□□□ A.

[illegible] [illegible] MN [illegible] M [illegible]

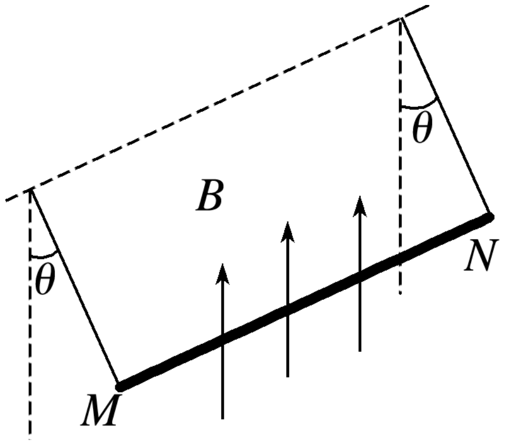
N [illegible] θ. [illegible] θ [illegible]

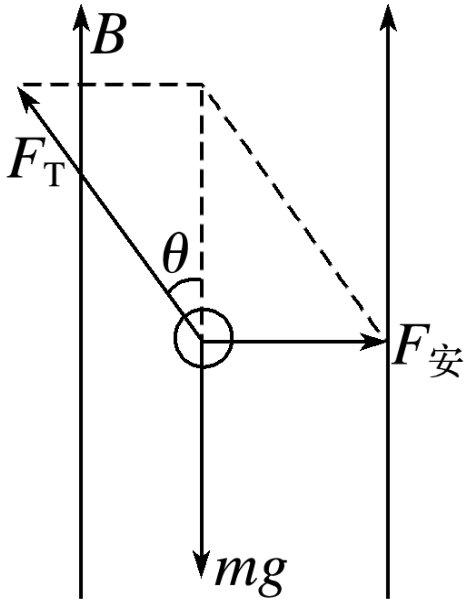
A. [illegible] θ [illegible]

√ B. [illegible] θ [illegible]

C. [illegible] θ [illegible]

D. [illegible] θ [illegible]





$F_{[illegible]}$ [illegible] $mg\tan\theta$ [illegible] $F_{[illegible]}$ [illegible] BIL [illegible]

[illegible] BIL [illegible] $mg\tan\theta$ [illegible] $I\uparrow \Rightarrow \theta\uparrow$ [illegible] $m\uparrow \Rightarrow \theta\downarrow$ [illegible] $B\uparrow \Rightarrow \theta\uparrow$

□□□□□□□□ 10 cm □□□□ ab □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

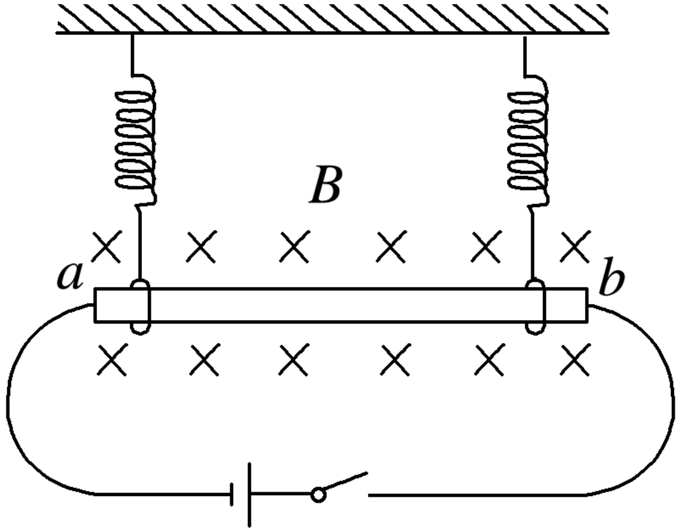
□□ 0.1 T □□□□□□□□□□□□□□□□□□□□□□□□□□. □□□□□□□□□□□□□ 12 V

□□□□□□□□□□□□ 2 Ω. □□□□□□□□

□□□□□□□□ 0.5 cm □□□□□□□□□□□□□□□□□□□□□□

□□□□□□□□□□□ 0.3 cm □□□□□□□□□ 10 m/s^2. □□

□□□□□□□□□□□□□□□□□□□□□□□□□□.



[illegible] $I=\frac{U}{R}=\frac{12\,\mathrm{V}}{2\,\Omega}=6\,\mathrm{A}$

[illegible] $F=BIL=0.06\ \mathrm{N}$

[illegible]

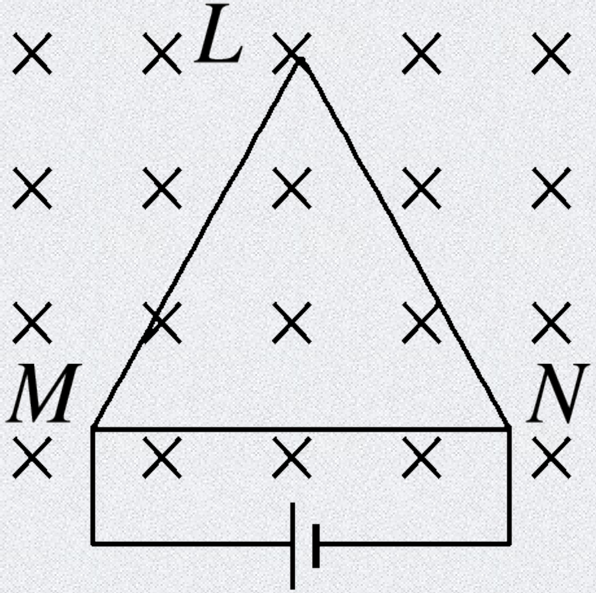
[illegible] $2kx=mg$

[illegible] $2k(x$ □ $\Delta x)$ □ mg □ F

[illegible] $m=0.01\ \mathrm{kg}$.

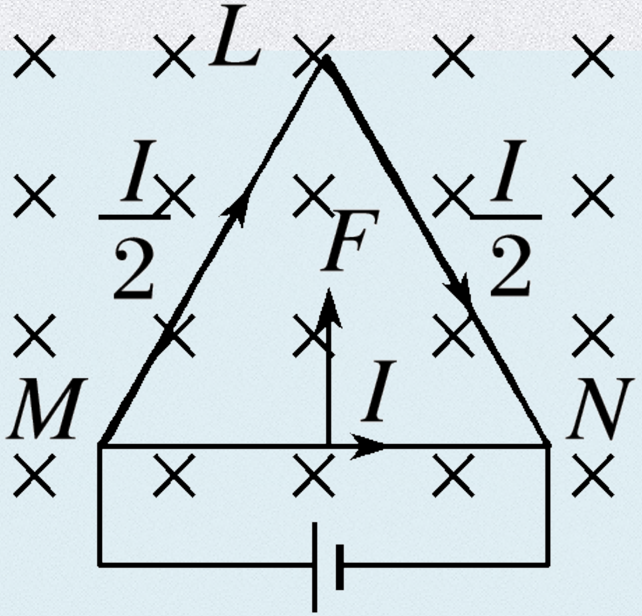
□□□□□□□

□ (2019·□□□Ⅰ·17) □□□□□□□□□□ LMN □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□ M □ N □□□□□□□□□ . □□ □□□ MN □□□□□□□□□ F □□□□ LMN □□□ □□□□□□□



A. $2F$ B. $1.5F$ C. $0.5F$ D. 0

√



□□　□□□□□□□□□□□□□□□□□□□ L_1 □ L_2 □ L_3 □□□□□□□

L_1 □ L_2 □□□□□□□□ L_1 □ L_2 □□□□□□□□□□□□□□□ L_3 □□□□□□□

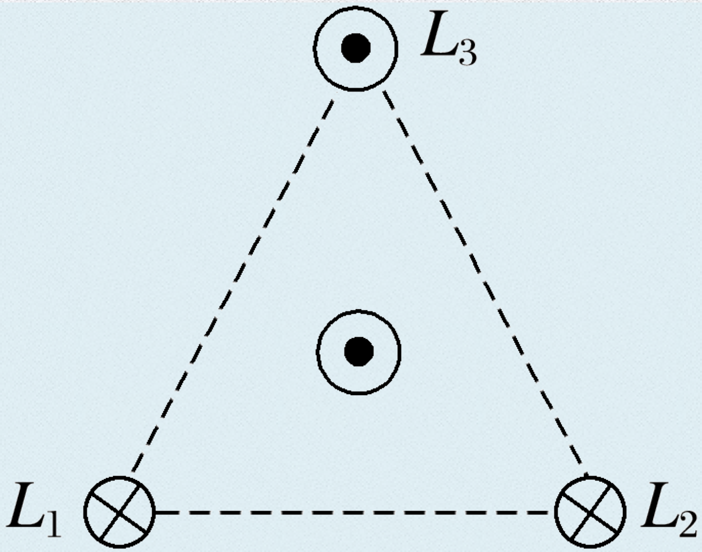
□□□

□□□□□□□□□□□□□□□□□□□□□□□□□

A. □□ L_1　B. □□ L_2

C. □□ L_3　D. □□ L_3

√



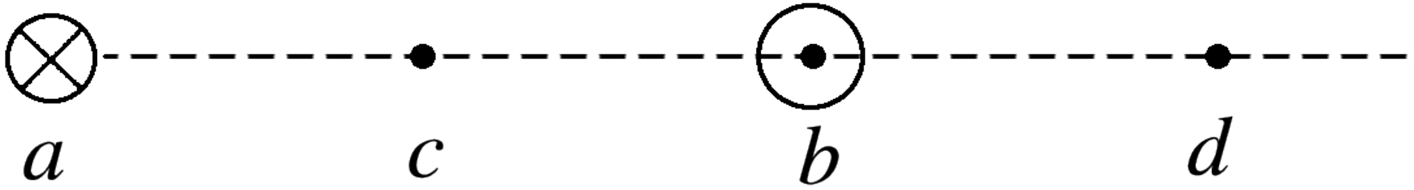
□□□□□

□□□□□□□□□□□□□□□□□ a □ b □□□□□□□□□□□□□□□

□.a □ b □□□□□ c □ ab □□□ d □□ c □□□ b □□□. □□ c □□□□□

□□ B_1 □ d □□□□□□□□□ B_2 □□□□ a □□□□ d □□□□□□□□□□□□□□□

□□□□□□



A. B_1□ B_2□ □ □ □ □ □ □　　B. B_1□ B_2□ □ □ □ □ □ □

C. $\frac{B_1}{2}$□ B_2□ □ □ □ □ □ □　　√ D. $\frac{B_1}{2}$□ B_2□ □ □ □ □ □ □

[illegible]

[illegible] MN [illegible] O [illegible] O' [illegible]

[illegible] θ [illegible]

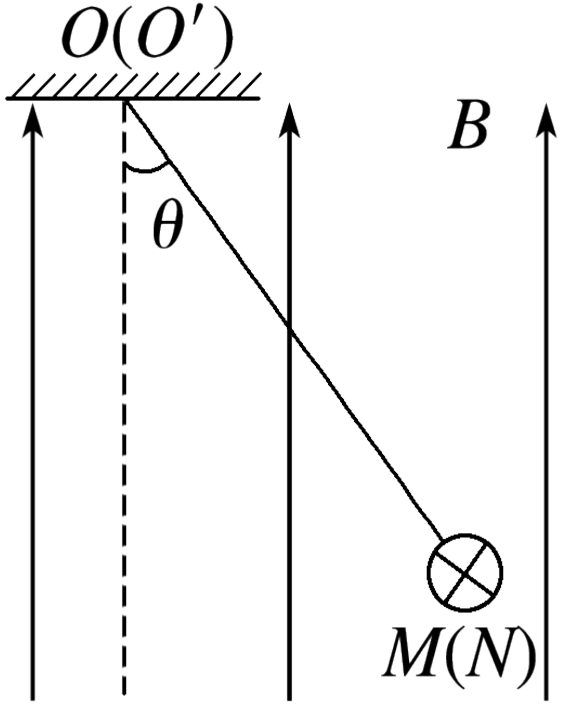
[illegible] $90°$ [illegible]

[illegible]

A. [illegible]　　B. [illegible]

C. [illegible]　　D. [illegible]

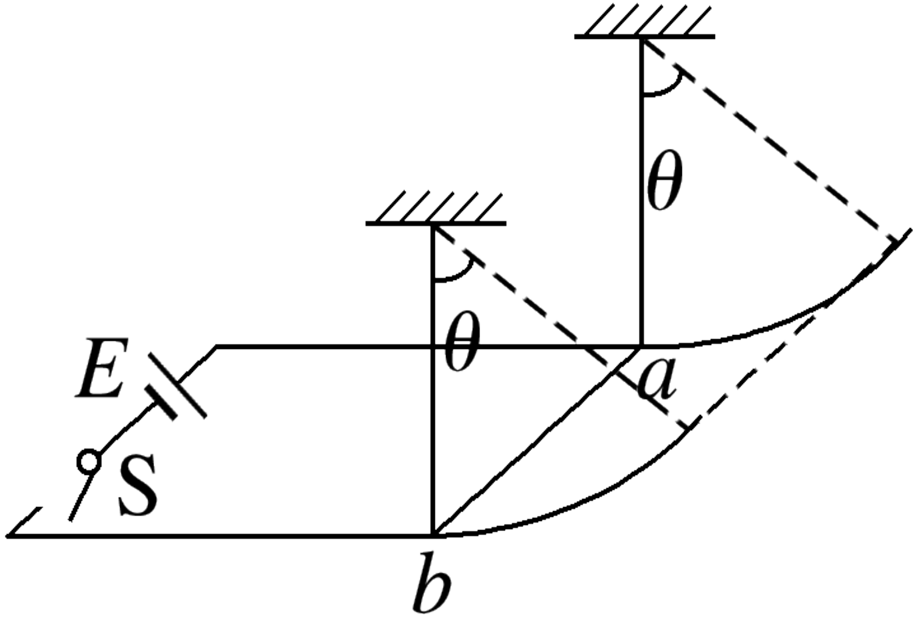
√



[illegible] ([illegible]) [illegible] S [illegible] E [illegible] L [illegible] 20 cm [illegible]. [illegible] 20 cm [illegible]. [illegible] B [illegible] 0.5 T. [illegible] ab [illegible] m [illegible] 60 g [illegible] R [illegible] 1 Ω [illegible] 20 cm [illegible]. [illegible] S [illegible]. [illegible] ab [illegible] θ [illegible] 53°(sin 53° [illegible] 0.8 [illegible] cos 53° [illegible] 0.6 [illegible] g [illegible] 10 m/s^2) [illegible]

A. [illegible]

B. [illegible] E [illegible] 8 V

C. [illegible] F [illegible] 8 N

D. [illegible] 0.08 J